



CITY OF TUCSON

The Sunshine City

COMMUNICATIONS DIVISION
P.O. BOX 27210
TUCSON, ARIZONA 85726-7210
(602) 791-3111
FAX: (602) 791-3190

February 17, 1993

RECEIVED

FEB 22 1993

FCC MAIL ROOM

Ms. Donna Searcy
Secretary
Federal Communications Commission
1919 M Street NW, Room 222
Washington, D.C. 20554

RE: PR Docket No. 92-235

Dear Ms. Searcy,

The Federal Communications Commission has announced the proposed revision of rules governing the City of Tucson's fire, police, medical and general services radio systems. The rule changes were announced under PR Docket No. 92-235, also called Spectrum Refarming and Part 88. Tucson desires to formally protest the FCC proposal on the grounds that the plan is technically impractical and ultimately destructive to the effective operation of Tucson's public safety departments.

The FCC has proposed a 1996 adoption of spectrum efficiency standards based on narrowband technology and revised technical standards, reduced transmit power levels and co-channel frequency assignments. The FCC rule change for spectrum efficiency would force Tucson to modify transmitter deviation and receiver bandwidth on all police, fire, medical and general services radios to operate within a narrowband spectrum. Tucson has attempted to modify several hand-held radios to conform to the proposed requirements with limited success. Conversations with agencies in the Phoenix area indicate they experienced similar results. **The FCC has oversimplified the technical issues involved.** The Association of Public-Safety Communications Officers (APCO) has substantiated this view in a report letter stating "It is, therefore, impractical, if not impossible, to reduce the bandwidth of today's receivers."

APCO has consulted engineers from leading United States public safety communications equipment manufacturers (APCO Reports, January 1993) and was provided the following information regarding the FCC proposal:

1. Reduced transmitter bandwidth will result in increased receiver noise;
2. Receiver audio volume will be reduced by 40% to 60%, possibly affecting intelligibility;
3. Equipment manufactured since the early 1980's may not be adjustable to the proposed deviation level;
4. Modern transmitters may not adjust to the proposed transmit power levels without harmful effects;
5. Modern frequency synthesized radio equipment may not be capable of operating in the proposed offset frequency assignments;
6. Encrypted (secured voice) radio equipment will not work with the proposed reduced deviation;
7. Paging receivers as used by many public safety personnel will not work with the proposed reduced deviation;
8. The proposed offset frequency and stringent frequency tolerances will render most current test equipment obsolete.

The impact of the plan goes beyond equipment considerations. Imposing the new standards will fragment the current operation of many public safety users. Section 88.231 of the proposal will reduce or eliminate mobile relay operation (common to many police and fire radio systems). The proposal eliminates much of the current radio frequency protection offered to public safety users. Police and fire departments could experience co-channel interference from a non-public safety entity that renders the emergency channel useless. The proposal will also eliminate many of the existing mutual aid operations between public safety users. Without an imposed standard from the FCC for narrowband transmitter modulation, existing mutual aid operations will cease to exist.

The proposal would be an economic nightmare to the nation's public safety agencies. The plan mandates a new operating standard by 1996 and erroneously assumes existing radio equipment can be modified to conform to the standard. Then the plan mandates a completely different standard starting in 2004. Agencies would be required to make major equipment modification/purchases in 1996, then discard everything and purchase new equipment starting in 2004. The City of Tucson is estimating it will cost 18 million dollars (1993 dollars) to replace its radio equipment.

The proposed plan has little regard for the economic impact on the spectrum users. Full responsibility for complying with technically complex issues has been passed on to the nation's police and fire departments with no apparent

February 17, 1993

A realistic plan needs to be formulated that minimizes the impact on the nation's public safety agencies. An acceptable plan would impose one standard so the nation can plan and purchase the appropriate equipment with a realistic time frame. The plan must adhere to available technology and hold manufacturers responsible for producing equipment before new standards become mandatory.

Respectfully submitted,



Milton L. Johnson, Jr.
Communications Administrator

MLJ:JJ:bg

cc: Ruben D. Suarez, City Manager
Ronald L. Meyerson, Director of Operations
Mary Okoye, Intergovernmental Affairs Director